INCH-POUND

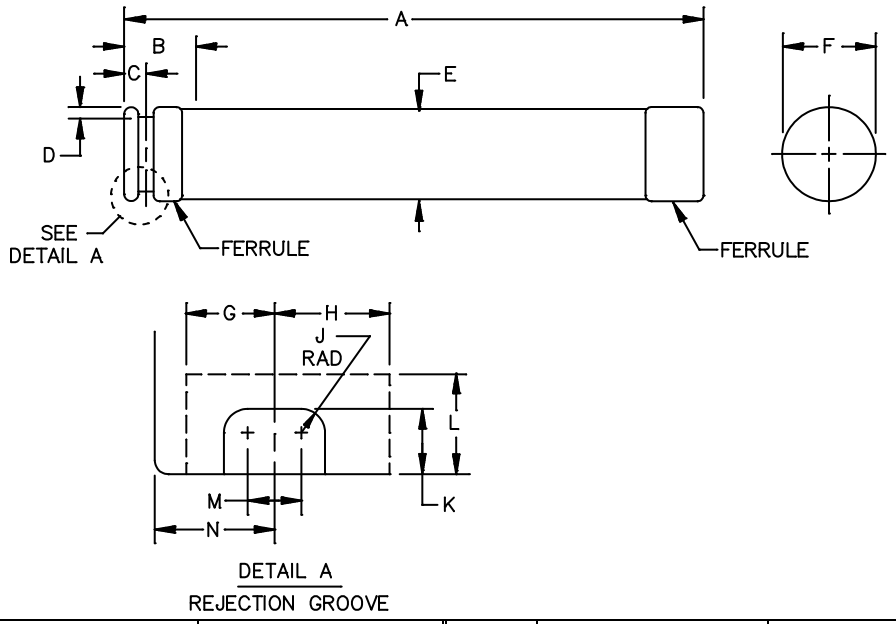
W-F-1814/62D
15 November 2013
SUPERSEDING
W-F-1814/62C
20 November 2009

FEDERAL SPECIFICATION SHEET

FUSE, CARTRIDGE, HIGH INTERRUPTING CAPACITY, CLASSES RK1 AND RK5 (CURRENT-LIMITING) 600 VOLTS, 0-30 AMPERES

The General Services Administration has authorized the use of this federal specification sheet by all federal agencies.

The complete requirements for procuring the fuses described herein shall consist of this document and the latest issue in effect of W-F-1814.



Ltr	Inches		mm		Ltr	Inches		mm	
	Min	Max	Min	Max		Min	Max	Min	Max
A	4.970	5.030	126.24	127.76	H	.165	.175	4.19	4.45
B	---	.500	---	12.70	J	.026	.036	.66	.91
C	.183	.193	4.65	4.90	K	.080	.090	2.03	2.29
D	.085	.130	2.16	3.30	L	.125	.135	3.18	3.43
E	---	.780	---	19.81	M	.065	.075	1.65	1.91
F	.804	.820	20.42	20.83	N	.183	.193	4.65	4.90
G	.118	.128	3.00	3.25					

FIGURE 1. Classes RK1 and RK5 fuses, 600 volts, 0-30 amperes.

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.
3. Solid line indicates location, shape, and dimensions for minimum rejection groove.
4. Dashed line indicates location, shape, and dimensions for maximum rejection groove.
5. Unless otherwise specified, tolerances are ±.02 (0.51 mm) for two-place decimals and ±.005 (0.13 mm) for three-place decimals.

FIGURE 1. Classes RK1 and RK5 fuses, 600 volts, 0-30 amperes - contined.

REQUIREMENTS:

Interface and physical dimensions: See figure 1.

Physical: Nonrenewable.

Terminals: Ferrule type. the ferrules shall be approximately circular in cross-section.

Material: Copper, or copper alloy.

Strength: 5 inch-pound torque between body and blades.

Alignment: The inside diameter of tubular gauge shall be not more than .823 inch (20.90 mm).

Body:

Insulating material: Fiber, ceramic, melamine-impregnated glass fiber, or other suitable material.

Electrical:

Voltage: 600 volts or less.

Frequency: 48 Hz to 60 Hz.

Current: See table I.

Current carrying capacity: 110 percent of rated current indefinitely with temperature rise not to exceed 50°C (90°F) above ambient on the body and the ferrules.

Overload interrupt:

Instantaneous: Shall interrupt within 1 hour at 135 percent of rated current and within 2 minutes at 200 percent of rated current.

Time delay - In addition to the above requirement, the fuse shall not interrupt 500 percent of rated current within 10 seconds. 1/

Interrupting capacity rating: 200,000 amperes rms symmetrical at 600 volts, 48 to 60 Hz and a power factor of 20 percent or less. Closing angle shall be essentially at the zero of the voltage wave (maximum offset) or later, to produce start of arcing within 30 electrical degrees prior to system peak voltage.

Threshold ratio: 30 maximum for RK1; 65 maximum for RK5.

Peak let-thru current: See table II.

Maximum clearing I^2T: See table II.

Applicable fuseholder: Class R for ferrule type fuses in accordance with UL 4248-12.

1/ A fuse marked "For use only on motor circuits" may clear within 8 minutes at 200 percent.

Part or Identifying Number (PIN): The Government PIN shall consist of the prefix "WF1814/62-" followed by the PIN designation shown in table I.

TABLE I. Current rating and PIN designation.

Current in amperes	PIN designation			
	RK5		RK1	
	Instantaneous	Time delay	Instantaneous	Time delay
1/10		D5001		D1001
15/100		D50015		D10015
2/10		D5002		D1002
3/10		D5003		D1003
4/10		D5004		D1004
1/2		D5005		D1005
6/10		D5006		D1006
8/10		D5008		D1008
1	F501	D501	F101	D101
1 1/8		D50112		D10112
1 1/4		D50125		D10125
1 4/10		D5014		D1014
1 6/10		D5016		D1016
1 8/10		D5018		D1018
2		D502		D102
2 1/4		D50225		D10225
2 1/2		D5025		D1025
2 8/10		D5028		D1028
3	F503	D503	F103	D103
3 2/10		D5032		D1032
3 1/2		D5035		D1035
4		D504		D104
4 1/2		D5045		D1045
5		D505		D105
5 6/10		D5056		D1056
6	F506	D506	F106	D106
6 1/4		D50625		D10625
7		D507		D107
8		D508		D108
9		D509		D109
10	F510	D510	F110	D110
12		D512		D112
15	F515	D515	F115	D115
17 1/2		D5175		D1175
20	F520	D520	F120	D120
25	F525	D525	F125	D125
30	F530	D530	F130	D130

TABLE II. Peak let-thru and I^2T current.

	Between threshold and 50 kA		100 kA		200 kA	
	RK1	RK5	RK1	RK5	RK1	RK5
Maximum acceptable peak let-thru current ($I_p \times 10^3$)	6	11	10	11	12	14
Maximum clearing I^2T (amperes squared seconds) ($I^2T \times 10^3$)	10	50	10	50	11	50

Referenced documents. In addition to W-F-1814, this document references the following:

UL 4248-12

The margins of this specification sheet are marked with vertical lines to indicate where changes from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

MILITARY INTEREST:

Custodians:
Army - CR
Navy - EC
Air Force - 85
DLA - CC

Review activities:
Army - AR, AT, CR4
Navy - OS
Air Force - 99
NSA - NS

CIVIL AGENCY COORDINATING ACTIVITIES:

GSA - FAS

Preparing activity:

DLA - CC

(Project 5920-2013-020)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.